

Breast Cancer by the Numbers

The American Cancer Society estimates that 232,670 women will learn they have breast cancer this year, and 40,000 will die from the disease.¹

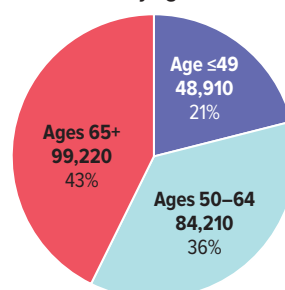
Still, the war on cancer has produced steady progress over the past four decades against the disease that surveys identify as women's most feared.² Among women diagnosed with invasive breast cancer between 1975 and 1977, 74.8% survived for five years. In the period from 2003 to 2009, five-year survival reached 90.3%.³

More than 2.9 million U.S. women with a history of breast cancer were alive on January 1, 2012—some cancer-free, some still undergoing treatment.⁴

Here's a look at some key statistics:

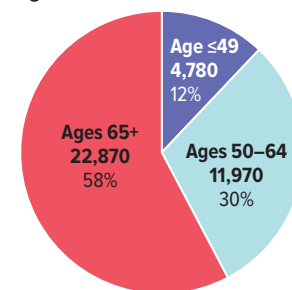
- Age is a major risk factor for breast cancer incidence (Figure 1) and mortality (Figure 2). Seventy-nine percent of new cases and 88% of deaths occur in women ages 50 and older. Still, an estimated 1,020 women younger than age 40 died from breast cancer in 2013.⁴
- Although the incidence of breast cancer is higher in non-Hispanic white women than African-American women in most age groups, African-American women are more likely to die from breast cancer at every age. This racial divide is reflected in five-year relative survival rates (Figure 3).^{3,4}
- Not surprisingly, the stage of cancer at the time of diagnosis affects the odds of survival (Figure 4). Again, race plays a role. Breast cancer was diagnosed at the localized stage (when survival is highest) for 62% of white women versus 52% of African-American women from 2003 to 2009.⁴
- National expenditures for breast-cancer care totaled \$16.5 billion in 2010. By 2020, those costs could reach \$23.24 billion a year, an estimate that assumes current trends in incidence and survival continue and costs rise 2%.⁵
- Although surveys have long shown that women fear breast cancer more than heart disease, heart disease is far deadlier.² In 2010, the rates of death per 100,000 women were 26.1 for breast cancer versus 184.9 for heart disease.⁶ Lung cancer is the top killer among cancers for both men and women.¹
- Breast-conserving surgery followed by radiation is the most common treatment regimen for breast cancer discovered at an early stage. Later-stage cases are more typically treated with mastectomy, radiation, and chemotherapy, which may include targeted therapies (Figure 5).⁴
- Pharmaceutical sales related to breast-cancer treatment appear likely to continue their steady rise. Decision Resources, a pharmaceutical and health care research firm, expects costly newer drugs to fuel 5 percent annual growth in the major world markets, with sales reaching more than \$15 billion in 2022.⁷
- About 20% of breast-cancer cases are HER2 positive.⁸ However, this category accounted for 41 percent of major market sales in 2012 and will continue to play an outsize role in spending for a decade, Decision Resources says.⁷
- Trastuzumab (Herceptin, Genentech) and bevacizumab (Avastin, Genentech) dominated breast-cancer pharmaceu-

FIGURE 1
Estimated new cases of invasive breast cancer in U.S. women by age in 2013



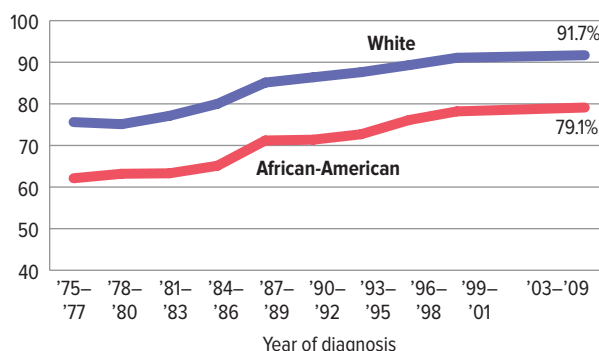
Source: American Cancer Society, Surveillance and Health Services Research, 2013. Based on 1995–2009 incidence rates from 49 states as reported by the North American Association for Central Cancer Registries.⁴

FIGURE 2
Estimated deaths from breast cancer among U.S. women by age in 2013



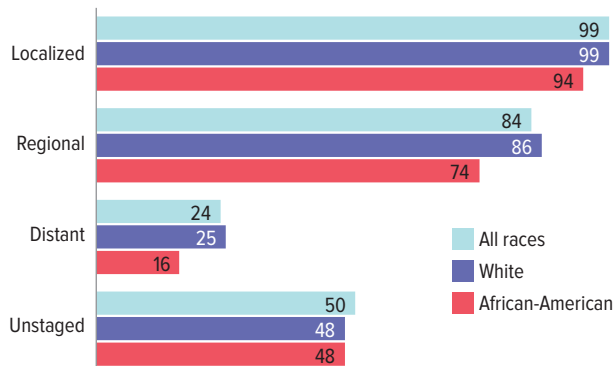
Source: American Cancer Society, Surveillance and Health Services Research, 2013. Based on data from U.S. Mortality Data, 1995–2009, National Center for Health Statistics, Centers for Disease Control and Prevention.⁴

FIGURE 3
Trends in invasive female breast cancer five-year relative survival by race, 1975–2009



Source: Surveillance, Epidemiology, and End Results (SEER) Program, National Cancer Institute. Based on SEER 9 with patient follow-up through 2010.^{3,4}

FIGURE 4
Five-year relative survival rates (%) among women by stage at diagnosis and race, 2003–2009

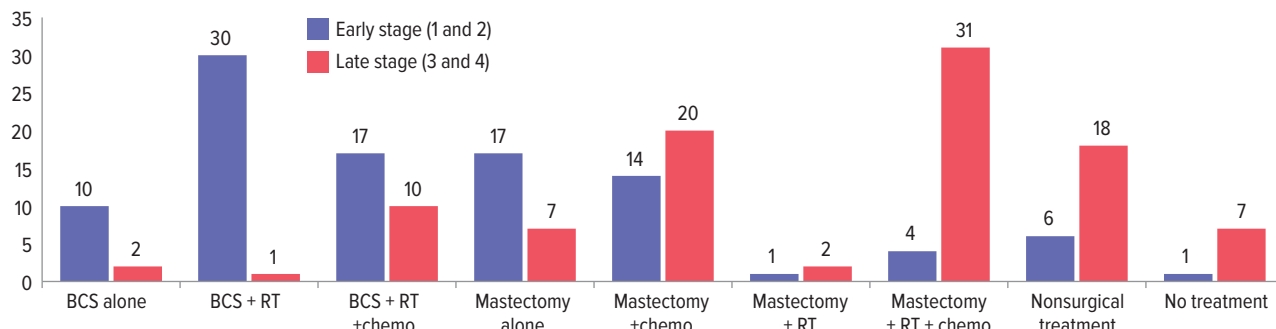


Survival rates are based on patients diagnosed between 2003 and 2009 and followed through 2010. Sources: American Cancer Society, Surveillance and Health Services Research, 2013; Howlader et al.^{4,11}

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FIGURE 5

Female breast cancer treatment patterns (%) by stage, U.S., 2008



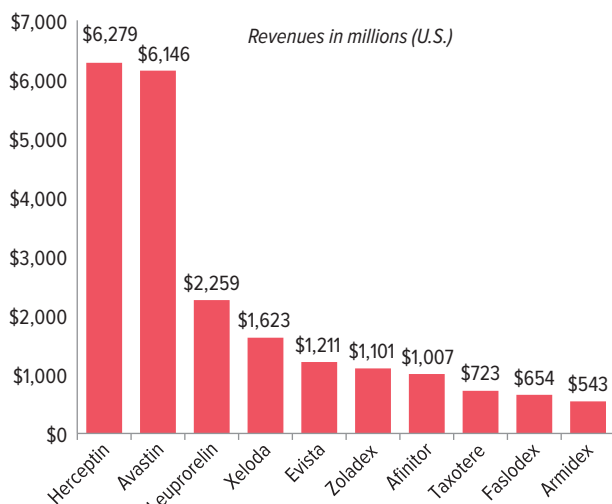
BCS = breast conserving surgery; RT = radiation therapy; chemo = chemotherapy and may include targeted therapies
Sources: National Cancer Database, 2008; American Cancer Society, Surveillance and Health Services Research, 2013⁴

tical spending in 2012, according to pharmaceutical market research firm GlobalData (Figure 6).⁹ About 2,000 drugs take aim at enzymes, proteins, peptides, hormone receptors, and other targets to fight breast cancer (Figure 7).¹⁰

- Pertuzumab (Perjeta, Genentech), ado-trastuzumab emtansine (Kadcyla, Genentech), everolimus (Afinitor, Novartis), and the as-yet-unapproved palbociclib (Pfizer) will help drive breast-cancer market growth through 2022, Decision Resources believes.⁷
- Some breast cancer risk factors are not modifiable, such as age, family history, early menarche, and late menopause. But others can be altered, such as postmenopausal obesity, use of combined estrogen and progestin menopausal hormones, alcohol consumption, and smoking.⁴ New research shows young women who are current or recent pack-a-day smokers for at least 10 years have a 60 percent increased risk for estrogen receptor positive breast cancer.¹²

FIGURE 6

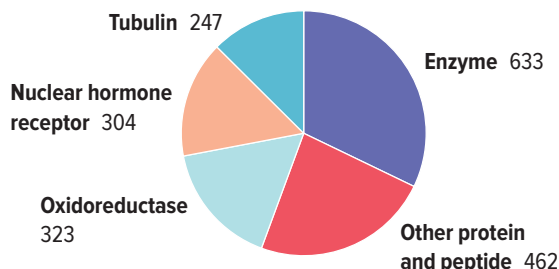
Global market for top-selling breast cancer therapies in 2012



Source: GlobalData⁹

FIGURE 7

Marketed products count, by target



Source: GlobalData¹⁰

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